

# IAP20 Rec'é POTITIO 08 MAY 2006

# PLASTIC SUNSHADE FOR A HAT OR A SUN VISOR CAP

### Technical Field

The present invention relates to a sunshade, and more particularly to a plastic sunshade for a hat or a sun visor cap.

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#### Background Art

A hat or a sun visor cap includes a main body and a sunshade. The main body is a part for covering a wearer's head, and the sunshade is a part forwardly protruding from the main body. The sunshade is for shielding the wearer's face from sunrays or rains or for decorating the hat or the sun visor cap.

In making conventional hats or sun visor caps, a sunshade is prepared, prior to being attached to the main body, to have a shape of flat plate, and then such sunshade is attached to the main body as it is. If a user has that sunshade be purposely bent by hands to transform the flat shape of sunshade into a bent shape, the end portion of the sunshade becomes straightened with time due to a strong restoration force of plastic, while the surrounding portion of the main body almost maintains its bent shape. Therefore the front and the rear of the sunshade have different curvatures. The kinds of design of the conventional sunshade are not diverse.

Various kinds of designs for the main body (which covers over wearer's head) of the conventional hats or the sun visor caps have been developed, but not for the shape of the sunshade.

#### Brief Description of the Drawings

Fig. 1 is a front view showing an exemplary hat having a sunshade which is formed into a smoothly curved surface like a circular arc, and Fig. 2 is a front view showing another exemplary hat having a sunshade which is formed into an angularly curved surface, according to the present invention;

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Fig. 3 is a side view of the hat with the sunshade shown in Fig. 1 and Fig. 4 is a side view of the hat with the sunshade shown in Fig. 2, according to the present invention;

Figs. 5 and 6 are sectional views of heat treatment molds for forming the sunshades shown in Figs. 1 and 2, respectively;

Fig. 7 is a top view of a plastic sunshade formed into an angularly curved surface.

# Disclosure of the Invention

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It is an object of the present invention to provide a sunshade capable of maintaining its original bent shape even after the sunshade is attached to the main body of a hat or a sun visor cap.

It is another object of the present invention to provide a sunshade of a hat or a sun visor cap for which diverse designs are applicable.

According to an aspect of the present invention, there is provided a sunshade for a hat or a sun visor cap characterized in that the sunshade is made of plastic to be formed into a shape of angularly curved surface.

According to another aspect of the present invention, there is provided a sunshade for a hat or a sun visor cap characterized in that the sunshade is made of plastic to be formed into a shape of smoothly curved surface like a circular arc.

Such curved surface shapes of the sunshade are designed and formed prior to being attached to the main body the hat or the sun visor cap.

The sunshade according to the present invention can maintain its original bent shape after being attached to the main body of a hat or a sun visor cap.

The present invention can provide lots of diversity in designing the shape of sunshade, while applicable shapes in designing conventional sunshades for a hat or a

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sun visor cap are not diverse.

It is expected that the hat or the sun visor cap having the sunshade of the present invention will be popular with consumers who are interested in new designs.

# 5 Best mode for carrying out the Invention

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Fig. 1 is a front view of an exemplary hat having a sunshade which is formed into a smoothly curved surface like a circular arc, and Fig. 2 is a front view showing another exemplary hat having a sunshade which is formed into an angularly curved surface with multi-segments, according to the present invention

The hat shown in fig. 1 is fabricated by forming a plastic sunshade 2 of which shape is a smoothly curved surface like a circular arc in a front view and then attaching the plastic sunshade 2 to a main body 1 of the hat. Similarly, the hat shown in fig. 2 is made by forming a plastic sunshade 3 of which shape is an angularly curved surface with connected multi-segments and then attaching the plastic sunshade 3 to a main body 1 of the hat.

Figs. 3 and 4 are side views of the hats with the sunshades shown in Figs. 1 and 2, respectively, according to the present invention.

Referring to figs. 3 and 4, the curvatures of the plastic sunshades 2 and 3 can be equal along the front and the rear of the sunshade.

Figs. 5 and 6 are sectional views of heat treatment molds for forming the sunshades shown in Figs. 1 and 2, respectively.

A raw plastic plate is inserted between the upper heat plate of the mold 301 and the lower heat plate of the mold 302, and then the upper heat plate of the mold 301 and the lower heat plate of the mold 302 are heated and press the raw plastic plate so that a sunshade 2 or 3 is formed into a designed shape.

Fig. 7 is a top view of a formed plastic sunshade 3 having a shape of an angularly curved surface with multi-segments.

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The front part of the sunshade 401 is formed into the shape of an angularly curved surface with multi-segments, while the rear part of the sunshade 401 attached to the main body 1 is formed into smoothly curved surface like a circular arc so that it can be easily stuck to the main body.

As the remaining processes for fabricating the hat according to the present invention are similar to the conventional processes, and detailed explanations about them are not given here.

There has been no sunshade identical or similar to the sunshade according to the present invention.

The hat or sun visor cap according to the present invention is fabricated in the manner that a sunshade is designed and formed into a desired shape and then the formed sunshade is attached to a main body of the hat or the sun visor cap.

The plastic sunshades according to the present invention can maintain their originally formed shapes even after being attached to the main body of the hat or the sun visor cap because they are formed into rigid shapes such as a smoothly curved surface or an angularly curved surface by a plastic forming process.

## **Industrial Applicability**

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The sunshade can be manufactured by the process of casting, extruding or the like, in addition to the process of pressing with heat.

It should be noted that the design of the sunshade can be diversified by varying the degree of bending the sunshade, the bending angle between neighboring angularly surfaces, or the breadths or the lengths of the angularly surfaces.

It should be further noted that the sunshade can be manufactured to have any other shape that is shown as a smoothly curved surface bent like a circular arc or as an angularly curved surface, when viewed from any other direction rather than the front direction.